

=> D HIS L14-

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      (FILE 'HCAPLUS' ENTERED AT 10:31:22 ON 03 JUN 1999)
L14      65 S AHLUWALIA G?/AU
L15      29 S SHANDER D?/AU
L16      15 S L14 AND L15
L17      1 S 125:293042/DN
          SELECT RN L17 1

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      FILE 'REGISTRY' ENTERED AT 10:33:04 ON 03 JUN 1999
L18      46 S E66-111

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      FILE 'HCAPLUS' ENTERED AT 10:34:19 ON 03 JUN 1999
L19      1 S L17 AND L18
L20      98475 S L18
L21      321 S L20 AND (HAIR? OR ALOPEC?)
L22      35 S L20 AND (HIRSUT? OR HAIR(3A) (INHIBIT? OR RETARD? OR
LESSEN?))

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=> D BIB ABS HITRN 1-35

L22 ANSWER 1 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1998:666111 HCAPLUS

DN 129:341554

TI Utilization of quinate and p-hydroxybenzoate by actinomycetes. Key enzymes

and taxonomic relevance

AU Grund, Erwin; Kutzner, Hans Juergen

CS Inst. Mikrobiologie Genetik, Techn. Univ. Darmstadt, Darmstadt, D-64287, Germany

SO J. Basic Microbiol. (1998), 38(4), 241-255

CODEN: JBMIEQ; ISSN: 0233-111X

PB Wiley-VCH Verlag Berlin GmbH

DT Journal

LA English

AB Streptomyces (including species of the former genera Chainia and Streptovercillium), Pseudonocardia, and Micromonospora were examd. for their ability to degrade quinate (Q) and p-hydroxybenzoate (pHBE) and selected strains were tested for their capacity to catabolize benzoate (BE). Twenty-seven percent of the streptomycete strains grew with Q and 57% with pHBE. The 3 strains of Chainia metabolized Q and pHBE. Eighty percent of the strains of P. autotrophica grew with Q and 100% degraded pHBE and BE. Two of the 5 Micromonospora strains gave a pos. response with pHBE. Toluene-treated cells (preincubated with Q, pHBE, or BE) gave a pos. Rothera reaction with protocatechuate or catechol, resp. The

assay

of 5 relevant enzymes in cell-free exts. of selected organisms showed that

in nocardioform actinomycetes (Pseudonocardia, Rhodococcus) all enzymes of

the protocatechuate branch of the ketoadipate pathway were induced by .beta.-ketoadipate as demonstrated for protocatechuate-3,4-dioxygenase. In Streptomyces this enzyme was induced by its substrate protocatechuate.

IT 120-80-9, Catechol, biological studies

RL: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)

(arom. compds. degrdn. by catabolic enzymes of actinomycetes)

L22 ANSWER 2 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1998:541902 HCAPLUS

DN 129:227354

TI Purification and characterization of the constitutive form of laccase from

the basidiomycete Coriolus **hirsutus** and effect of inducers on laccase synthesis

AU Koroljova-Skorobogat'ko, Olga V.; Stepanova, Elena V.; Gavrilova, Valeria P.; Morozova, Olga V.; Lubimova, Natalia V.; Dzchafarova, Aida N.; Jaropolov, Alexander I.; Makower, Alexander

CS A. N. Bach Institute of Biochemistry Russian Academy of Sciences, Moscow, 117071, Russia

SO Biotechnol. Appl. Biochem. (1998), 28(1), 47-54

CODEN: BABIEC; ISSN: 0885-4513

PB Portland Press Ltd.

DT Journal

Searched by John Dantzman 308-4488

LA English

AB An isolate of *Coriolus hirsutus* constitutively expresses substantial amts. of extracellular laccase on a defined growth medium. The most efficient inducer of extracellular laccase synthesis was syringaldazine, which increased the enzyme yield by 1000% at a concn. of 0.11 μ M. The constitutive form of the enzyme was purified 312-fold. Laccase from *C. hirsutus*, with an estd. mol. mass of 55 kDa and pI of 4.0, is a monomeric glycoprotein contg. 12% carbohydrate consisting of mannose and N-acetylglucosamine. The laccase was found to contain 3.9-4.1 copper atoms per mol. The absorption spectrum shows a max. at

610

1

nm and a shoulder at 330 nm, which is typical of laccase possessing type

and type 3 copper atoms. The parameters of the first type of copper were detd. by EPR as g.perp. = 2.046 and g.perp. = 2.200, A.dblvert. = 8.103 $\times 10^{-3}$ cm⁻¹. Laccase was found to be a pH-stable and thermostable enzyme. With org. substrates it exhibits a pH optimum of 4.5, but with the inorg. substrate K₄[Fe(CN)₆] this decreased to 3.5. The highest efficiency of catalysis was obsd. with sinapinic acid as the substrate. The kinetic consts. k_{cat} and K_m of this reaction were 578 s⁻¹ and 24

μ M

resp. It was established that the kinetics of the assayed reaction follow

a Ping Pong mechanism.

IT 120-80-9, Catechol, biological studies

RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (purifn. and characterization of the constitutive form of laccase from the basidiomycete *Coriolus hirsutus* and effect of inducers on laccase synthesis)

L22 ANSWER 3 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1997:682194 HCAPLUS

DN 127:336462

TI Lipoxygenase and cyclooxygenase inhibitors for hair growth changes preparations

IN Duranton, Albert

PA L'Oreal, Fr.

SO Eur. Pat. Appl., 10 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 800815	A2	19971015	EP 97-400727	19970328
	EP 800815	A3	19971112		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	FR 2747568	A1	19971024	FR 96-4795	19960417
	CA 2202924	AA	19971017	CA 97-2202924	19970416
	JP 10036235	A2	19980210	JP 97-99260	19970416
PRAI	FR 96-4795		19960417		

AB A hair growth compn. for the modification of hair growth consists of at least 1 lipoxygenase and at least 1 cyclooxygenase inhibitor. Thus, a hair lotion contained nordihydroguaiaretic acid 0.10, indomethacin 0.05, propylene glycol 22.80, EtOH 55.10 and water to 100.00 g.

IT 120-80-9, Catechol, biological studies 120-80-9D,

Searched by John Dantzman 308-4488

Catechol, derivs.

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lipoxygenase and cyclooxygenase inhibitors for hair growth preps.)

L22 ANSWER 4 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1997:576677 HCAPLUS

DN 127:171883

TI Method of treating alopecia

IN Smart, Robert C.; Oh, Hye-sun

PA North Carolina State University, USA; Smart, Robert C.; Oh, Hye-Sun

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9730697	A1	19970828	WO 97-US2385	19970218
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, VZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9720513	A1	19970910	AU 97-20513	19970218
PRAI	US 96-604448		19960221		
	WO 97-US2385		19970218		
OS	MARPAT 127:171883				
AB	A method of enhancing hair growth or treating alopecia in a subject uses topically administered estrogen receptor antagonists. Within 3 wk, topical application of the estrogen receptor antagonist ICI 182780 (10 nmol, twice weekly) induced full hair regrowth on clipped dorsal skin of 60% of the treated mice, as compared to 40% of the vehicle only treated mice.				
IT	10540-29-1, Tamoxifen				
	RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(alopecia treatment with estrogen receptor antagonists)				

L22 ANSWER 5 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1997:131617 HCAPLUS

DN 126:152773

TI Activation of cytoprotective prostaglandin synthase-1 by minoxidil as a possible explanation for its hair growth-stimulating effect

AU Michelet, Jean-Francois; Commo, Stephane; Billoni, Nelly; Mahe, Yann F.; Bernard, Bruno A.

CS Hair Biology Research Group, L'OREAL, Clichy, 92583, Fr.

SO J. Invest. Dermatol. (1997), 108(2), 205-209

CODEN: JIDEAE; ISSN: 0022-202X

PB Blackwell

DT Journal

LA English

AB Nonsteroidal anti-inflammatory drugs induce hair loss in vivo. These

Searched by John Dantzman 308-4488

drugs are inhibitors of both the cytoprotective isoform of prostaglandin endoperoxide synthase-1 (PGHS-1) and of the inducible form (PGHS-2). Immunohistochem. staining showed that PGHS-1 is the main isoform present in the dermal papilla from normal human hair follicles (either anagen or catagen), whereas PGHS-2 was only faintly and exclusively expressed in anagen dermal papilla. Thus, PGHS-1 might be the primary target of the **hair growth-inhibitory** effects of nonsteroidal inflammation inhibitors. It was thus speculated that activation of

PGHS-1

might be a mechanism by which minoxidil stimulates hair growth in vivo. It is shown here that minoxidil is a potent activator of purified PGHS-1, as demonstrated by increased O consumption and PGE2 prodn. This activation was also evidenced by increased PGE2 prodn. by BALB/c 3T3 fibroblasts and by human dermal papilla fibroblasts in culture.

Minoxidil

and its derivs. may have a cytoprotective activity in vivo.

IT 9055-65-6, Prostaglandin synthase

RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(1; minoxidil activation of prostaglandin synthase-1 in relation to hair growth)

L22 ANSWER 6 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1997:126334 HCAPLUS

DN 126:207613

TI Estrogen dermatitis

AU Leylek, Oezkan A.; Uenlue, Sibel; Oeztuerkcan, Serap; Cetin, Ali; Sahin, Mustafa; Yildiz, Esin

CS Department of Obstetrics and Gynecology, Cumhuriyet University School of Medicine, Kadin Hastaliklari Anabilim Dalı, 58140, Sivas, Turk.

SO Eur. J. Obstet. Gynecol. Reprod. Biol. (1997), 72(1), 97-103

CODEN: EOGRAL; ISSN: 0301-2115

PB Elsevier

DT Journal

LA English

AB The aim of the present study was to evaluate the estrogen dermatitis of women who have chronic skin disorders with exacerbations or premenstrual dermatitis in a cyclic pattern. Twenty-three women exhibiting skin disorders of pruritus, urticaria, eczema, papulovesicular eruption, **hirsutism**-acne with hyperpigmentation (**hirsutism** and/or its related disorders such as acne) and 18 healthy control subjects were included in the study. Sensitivity to estrogen was described in 14 of 23 women. Of the 14 estrogen sensitive women, nine had a premenstrual flare of their skin lesions and five had a chronic dermatitis with exacerbations. In the evaluation of endocrine profile, mean serum testosterone and LH levels of the patient group were significantly higher than controls (2.814. \pm .0.839 vs. 1.561. \pm .0.645 nm/L, $P < 0.001$; 10.843. \pm .2.538 vs. 4.539. \pm .1.215 IU/L, $P < 0.0001$). The LH/FSH ratio of the patient group was also significantly higher than controls (1.765. \pm .0.329 vs. 0.810. \pm .0.116, $P < 0.0001$). Mean serum progesterone level of the patient group was significantly lower than the control group (0.499. \pm .0.201 vs. 0.977. \pm .0.396 ng/mL, $P < 0.001$). Hyperandrogenism and anovulation were the two more common outcomes in the patient group. Skin lesions of estrogen sensitive women were all cured with the

administration

of tamoxifen 20 mg daily for 7 days premenstrually.

IT 10540-29-1, Tamoxifen

RL: BAC (Biological activity or effector, except adverse); THU

Searched by John Dantzman 308-4488

(Therapeutic use); BIOL (Biological study); USES (Uses)
 (estrogen dermatitis in women with chronic skin disorders with
 exacerbations or premenstrual dermatitis in cyclic pattern and
 treatment with tamoxifen)

L22 ANSWER 7 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1996:660913 HCAPLUS

DN 125:293042

TI Use of angiogenesis suppressors for **inhibiting hair**
 growth

IN Ahluwalia, Gurpreet S.; Styczynski, Peter; Shander, Douglas

PA Handelsman, Joseph H., USA

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9626712	A2	19960906	WO 96-US2790	19960227
	WO 9626712	A3	19961121		
	W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML			
	CA 2213404	AA	19960906	CA 96-2213404	19960227
	AU 9653009	A1	19960918	AU 96-53009	19960227
	EP 812185	A2	19971217	EP 96-909552	19960227
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE			
	BR 9607060	A	19981215	BR 96-7060	19960227
	JP 11501035	T2	19990126	JP 96-526415	19960227
PRAI	US 95-396446		19950228		
	WO 96-US2790		19960227		
AB	A method of inhibiting hair growth in a mammal includes applying, to an area of skin from which reduced hair growth is desired, a dermatol. acceptable compn. contg. a non-steroidal suppressor of angiogenesis. The effective compds. include sulfotransferase inhibitors, heparin binding antagonists, Cu chelators, histidine decarboxylase inhibitors, mast cell degranulation inhibitors, histamine receptor antagonists, ACE inhibitors, angiotensin II receptor antagonists, prostaglandin synthetase inhibitors, NK1 receptor antagonists, PAF receptor antagonists, and cytochrome P 450 reductase inhibitors. A topical prepn. contg. 10 % bathocuproine, was applied to male intact Golden Syrian hamsters; hair growth was inhibited by 81 %.				
IT	67-43-6, Diethylenetriamine pentaacetic acid 83-89-6, Quinacrine 91-81-6, Tripelennamine 113-92-8 120-80-9, 1,2-Benzenediol, biological studies 1398-62-5, Chitin sulfate 1845-11-0, Nafoxidine 3316-09-4, p-Nitrocatechol 4431-00-9, Aurintricarboxylic acid 4733-39-5, Bathocuproine 7491-74-9, Piracetam 10540-29-1, Tamoxifen 12772-57-5, Radicicol 15826-37-6, Cromoglycate 18550-55-5, Hyponitric acid 21829-25-4, Nifedipine 23110-15-8, Fumagillin				
	Searched by John Dantzman 308-4488				

- 23593-75-1, Clotrimazole 24280-93-1, Mycophenolic acid
 25614-03-3, Bromocryptine 37270-94-3, Platelet factor-4
 38096-31-0D, Diaminoanthraquinone, derivs. 50679-08-8,
 Terfenadine 51481-61-9, Cimetidine 52698-84-7,
 Bathocuproinesulfonate 57381-26-7, Irsogladine
 65899-73-2, Tioconazole 70050-43-0, .alpha.-
 Fluoromethylhistidine 75847-73-3, Enalapril 76547-98-3
 , Lisinopril 84088-42-6, Linomide 110590-61-9
 114798-26-4, Losartan 126509-46-4, Eponemycin
 129912-34-1 135911-02-3 182930-58-1
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (angiogenesis suppressors for inhibiting hair
 growth)
- IT 51-45-6, Histamine, biological studies 11128-99-7,
 Angiotensin II 33507-63-0, Substance P 65154-06-5,
 Platelet activating factor
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (antagonists; angiogenesis suppressors for inhibiting
 hair growth)
- IT 9015-82-1, Angiotensin-converting enzyme 9023-09-0,
 Sulfotransferase 9024-61-7, Histidine decarboxylase
 9039-06-9, Cytochrome P450 reductase 9055-65-6,
 Prostaglandin synthetase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors; angiogenesis suppressors for inhibiting
 hair growth)
- L22 ANSWER 8 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1996:440518 HCAPLUS
 DN 125:158299
 TI Screening of selected basidiomycetes for inhibitory activity on neutral
 endopeptidase (NEP) and angiotensin-converting enzyme (ACE)
 AU Melzig, Matthias F.; Pieper, S.; Siems, W. E.; Heder, G.; Boettger, A.;
 Liberra, K.; Lindequist, U.
 CS Institute Molecular Pharmacology, Berlin, D-10315, Germany
 SO Pharmazie (1996), 51(7), 501-503
 CODEN: PHARAT; ISSN: 0031-7144
 DT Journal
 LA English
 AB Aq. exts. of 27 basidiomycetes were investigated for their ability to
 inhibit the activity of angiotensin-converting enzyme (ACE) and neutral
 endopeptidase (NEP). The exts. of 5 fungi inhibited both, ACE and NEP
 activity, another 18 exts. showed inhibition of the NEP activity whereas
 only 1 basidiomycete inhibited the ACE activity exclusively. The IC50
 values for the ACE inhibition are rather high (between 200 and 1500
 .mu.g/mL) in comparison to the IC50 of the NEP inhibition (between 40 and
 2000 .mu.g/mL). These results indicate that the basidiomycetes
 investigated seem to have a higher potential for the inhibition of the
 activity of NEP than of NEC. In general, basidiomycetes are a new source
 for inhibitors of metalloendopeptidases. Resulting from the isolation
 and
 characterization of these compds. new leading structures are expectable.
- IT 9015-82-1, Angiotensin- converting enzyme
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors; selected basidiomycetes for inhibitory activity on
 neutral

endopeptidase and ACE)

L22 ANSWER 9 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1996:315324 HCAPLUS

DN 124:352330

TI Anti-dandruff hair rinse containing cationic germicide, quaternary ammonium conditioner, and metal chelator

IN Hioki, Yuichi; Moriyama, Tadashi; Tamura, Yoshinori; Okamoto, Juri; Takeshige, Yuichi

PA Kao Corp., Japan

SO Ger. Offen., 13 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19536420	A1	19960411	DE 95-19536420	19950929
	JP 08099841	A2	19960416	JP 94-239981	19941004
	CN 1126585	A	19960717	CN 95-117383	19950929

PRAI JP 94-239981 19941004

OS MARPAT 124:352330

AB A hair rinse contg. (a) an alkylbenzyltrimethylammonium germicide, (b) a quaternary ammonium-type cationic polymer or cationic surfactant as conditioner, and (c) a chelating agent in a molar ratio to the other 2 components of .gtoreq.0.5 shows good conditioning, anti-dandruff, antipruritic, and deodorant activity even in the presence of anionic surfactants. Thus, a hair rinse was prepd. contg. (2-dodecylhexadecyl)trimethylammonium chloride 1.5, benzalkonium chloride 1.0, di-Na EDTA 2.0, cetostearyl alc. 3.0, liq. paraffin 1.0, dimethylpolysiloxane 1.0, hydroxyethylcellulose 0.5, methylparaben 0.5, perfume 0.4, and water to 100.0%.

IT 67-43-6

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(chelating agent; anti-dandruff hair rinse contg. cationic germicide, quaternary ammonium conditioner, and metal chelator)

L22 ANSWER 10 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1995:557432 HCAPLUS

DN 122:299059

TI Hair growth stimulants comprising lipoxxygenase or cycloxygenase stimulants

or inhibitors

IN Duranton, Albert; De Lacharriere, Olivier

PA Oreal S. A., Fr.

SO Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 648488	A1	19950419	EP 94-402055	19940914
	R: DE, ES, FR, GB, IT				
	FR 2711060	A1	19950421	FR 93-12178	19931013
	FR 2711060	B1	19951117		

Searched by John Dantzman 308-4488

CA 2132507 AA 19950414 CA 94-2132507 19940920
 JP 07238037 A2 19950912 JP 94-245351 19941011
 PRAI FR 93-12178 19931013
 AB The title compns. contg. lipoxxygenase or cycloxygenase stimulants or inhibitors are disclosed. A hair lotion contained nordihydroguaiaretic acid 0.1, linoleic acid 0.1, propylene glycol 22.8, EtOH 95.degree. 55.1, and water q.s. 100g.
 IT **65154-06-5**, Platelet activating factor
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hair growth stimulants comprising lipoxxygenase or cycloxygenase stimulants or inhibitors)

L22 ANSWER 11 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1994:663283 HCAPLUS
 DN 121:263283
 TI Compositions and methods for promoting hair growth
 IN Goldman, Boris E.
 PA Ringler, Steven L., USA
 SO PCT Int. Appl., 37 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9418936	A1	19940901	WO 94-US1708	19940217
	W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5407944	A	19950418	US 93-20202	19930219
	CA 2156505	AA	19940901	CA 94-2156505	19940217
	AU 9462988	A1	19940914	AU 94-62988	19940217
	EP 684809	A1	19951206	EP 94-910699	19940217
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,				

SE US 5480889 A 19960102 US 95-390628 19950217
 PRAI US 93-20202 19930219
 WO 94-US1708 19940217

AB A method for promoting hair growth comprise the administration to a patient of a vasodilator in combination with estradiol and/or a 5-alpha-reductase inhibitor (e.g. finasteride) in a pharmaceutically acceptable vehicle. The compns. and methods of the present invention are suitable for the treatment of baldness, in particular, male pattern baldness. The resting transcutaneous PO2 of bald frontal scalps of bald volunteers was lower (32.2 mm Hg) than hair bearing temporal scalp (51.8 mm Hg) while there was no difference in transcutaneous PO2 of frontal (53.9 mm Hg) and temporal (61.4 mm Hg) scalp of controls.

IT **21829-25-4**, Nifedipine
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hair growth stimulants for promoting hair growth)

L22 ANSWER 12 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1994:86093 HCAPLUS

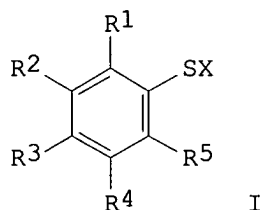
Searched by John Dantzman 308-4488

DN 120:86093
 TI Hair growth stimulants containing Fuzi extracts and anti-inflammatories
 IN Minamino, Hiromi; Iwamoto, Yoshimichi
 PA Kanebo Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05286833	A2	19931102	JP 92-112197	19920403
AB	Hair growth stimulants, which have alopecia- and dandruff-preventing effects, contain Fuzi exts. and .gtoreq.1 compds. chosen from diphenhydramine.HCl, hydrocortisone, chlorpheniramine maleate, allantoin, guaiazulene, and .epsilon.-aminocaproic acid. A hair tonic was prepd. from EtOH 60.0, Fuzi ext. 0.5, diphenhydramine hydrochloride 0.1, propylene glycol 1.0, fragrances 0.1, and H2O to 100.0 wt.%. IT 113-92-8, Chlorpheniramine maleate RL: BIOL (Biological study) (hair growth stimulants contg. Fuzi exts. and)				

L22 ANSWER 13 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1993:678366 HCAPLUS
 DN 119:278366
 TI Aryl sulfides and melanin inhibitors containing aryl sulfides
 IN Kitayama, Takashi; Ando, Masatomo; Nishizawa, Yoshinori; Imokawa, Genji; Jokura, Hiroko; Kobayashi, Takeshi
 PA Kao Corp, Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05213857	A2	19930824	JP 92-16535	19920131
OS	MARPAT 119:278366				
GI					



AB Melanin inhibitors contain aryl sulfides I (R1-R5 = H, OH, OAc; X = HO-, HO2C-, or lower alkoxy-substituted lower alkyl, lower acyl, hydroxyphenyl, hydroxyphenylthio, CH2COCH2COR; R = lower alkoxy) as active ingredients. Ammonium thiocyanate was added dropwise to a mixt. of resorcinol,

Searched by John Dantzman 308-4488

CuSO₄·5H₂O, and H₂O at room temp. and the mixt. was stirred at room temp. for 8 h to give 60.1% 6-hydroxy-1,3-benzoxathiol-2-one, which was stirred with aq. NaOH at room temp. for 1 h and treated with 3-chloro-1-propanol to give 86.5% 3-(o,p-dihydroxyphenylthio)-1-propanol (II). II (at 5 mM) **inhibited** tyrosinase in cultured hair follicles of mice.

A cosmetic lotion contg. 5 wt.% I was formulated.

IT 120-80-9, Catechol (phenol), reactions

RL: RCT (Reactant)

(reaction of, with thiourea)

L22 ANSWER 14 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1993:154120 HCAPLUS

DN 118:154120

TI The inhibition of mutagenicity ascribed to oxidized products from hair dye

component. m-Phenylenediamine with hydrogen peroxide by iron (II) sulfate,

phenol derivatives, or metal chelates

AU Watanabe, Tetsushi; Kusumoto, Masanori; Hatatani, Seiji; Matsuoka, Sachiko; Toyoda, Tomoko; Hirayama, Teruhisa

CS Kyoto Pharm. Univ., Kyoto, 607, Japan

SO Jpn. J. Toxicol. Environ. Health (1992), 38(6), 529-36

CODEN: JJTHEC

DT Journal

LA Japanese

AB 2,7-Diaminophenazine (2,7-diNH₂-Pz) formed from m-phenylenediamine (m-PD) by H₂O₂ oxidn. was extremely mutagenic in Salmonella typhimurium strain TA98 with a mammalian metabolic activation system (S9 mix). m-PD and mixts. of m-PD and phenol derivs. (m-PD/phenols) were treated with 3%

H2O2 in the presence or absence of FeSO₄ and their mutagenicity was tested using strain TA98 with S9 mix In order to evaluate the modulating effect of phenol derivs. and FeSO₄ on H₂O₂ oxidn. of m-PD. The total mutagenicity, which was calcd. from the yields of oxidized mixts. i.e. AcOEt ext.) and their mutagenicity, decreased remarkably by the addn. of FeSO₄ into the H₂O₂ oxidn. system. Since the yields of 2,7-diNH₂-Pz and AcOEt ext. decreased more in a H₂O₂-FeSO₄ oxidn. system than those in a H₂O₂ oxidn. system, the redn. of the total mutagenicity was presumed to

be due to the accelerated polymn. of m-PD by FeSO₄ added. Furthermore, the modulating effect of 5 kinds of metal chelates on the mutagenicity of 2,7-diNH₂-Pz and on the H₂O₂ oxidn. of m-PD was evaluated. All tested metal chelates reduced the mutagenic response of 2,7-diNH₂-Pz in strain TA98 with S9 mix, and the strongest inhibitory effect was obsd. in the case using hemin. The amt. of free 2,7-diNH₂-Pz in the mixt. soln. of 2,7-diNH₂-Pz and metal chelates was correlated to the mutagenic potency

of the mixt. It was suggested that the mutagenic inhibitory effect of metal chelates depend on the complex formation of metal chelates with 2,7-diNH₂-Pz. The addn. of metal chelates into the H₂O₂ oxidn. system of m-PD significantly decreased the amt. of free 2,7-diNH₂-Pz in the reaction

mixt. The redn. of the yield of 2,7-diNH₂Pz was assumed to be based on the polymn. of m-PD by metal chelates as catalyst and formation of complex

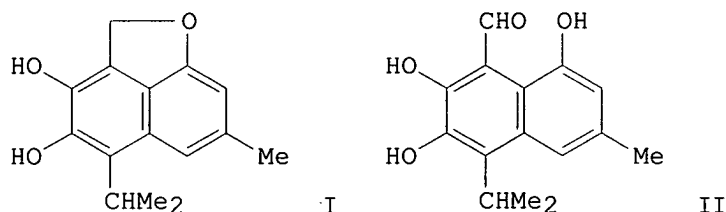
with 2,7-diNH₂-Pz and metal chelates.

IT 120-80-9P, Pyrocatechol, biological studies

Searched by John Dantzman 308-4488

RL: BIOL (Biological study); PREP (Preparation)
 (diaminophenazine formation from phenylenediamine and hydrogen
 peroxide
 in hair dyes inhibition by, mutagenicity in
 relation to)

L22 ANSWER 15 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1993:124799 HCAPLUS
 DN 118:124799
 TI The role of free radicals in the decomposition of the phytoalexin
 desoxyhemigossypol
 AU Stipanovic, Robert D.; Mace, Marshall E.; Bell, Alois A.; Beier, Ross C.
 CS Agric. Res. Serv., U.S. Dep. Agric., College Station, TX, 77845, USA
 SO J. Chem. Soc., Perkin Trans. 1 (1992), (23), 3189-92
 CODEN: JCPRB4; ISSN: 0300-922X
 DT Journal
 LA English
 GI



AB The cotton phytoalexin desoxyhemigossypol (I) decompd. rapidly in soln.
 to
 give hemigossypol (II). The rate of decompn. was retarded by the
 reducing
 agents ascorbic acid, reduced glutathione and cysteine, by the metal
 chelator diethylenetriaminepentaacetic acid, and by the enzyme catalase.
 However, the chelator, EDTA did not reduce the rate of decompn. and the
 enzyme superoxide dismutase increased the rate of decompn. Solns. of the
 phytoalexin desoxyhemigossypol-6-Me ether were significantly more stable
 than were those of I. Oxygen-18 from water but not from oxygen gas was
 incorporated into II during this decompn. A hydroperoxynaphthalenone
 which loses hydrogen peroxide is proposed as an intermediate to explain
 this observation. The formation of hydrogen peroxide may be involved in
 the toxicity of this phytoalexin to plant pathogens such as Bercicillium
 dahliae.
 IT 67-43-6, Diethylenetriaminepentaacetic acid
 RL: PRP (Properties)
 (effect of, on decompn. rate of desoxyhemigossypol)

L22 ANSWER 16 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1993:120112 HCAPLUS
 DN 118:120112
 TI A laccase electrode for organic-phase enzymic assays
 AU Wang, Joseph; Lin, Yuehe; Eremenko, A. V.; Ghindilis, A. L.; Kurochkin,
 I.
 N.

CS Dep. Chem., New Mexico State Univ., Las Cruces, NM, 88003, USA
SO Anal. Lett. (1993), 26(2), 197-207
CODEN: ANALBP; ISSN: 0003-2719
DT Journal
LA English
AB The biocatalytic activity of laccase from *Coriolus hirsutus* in nonaq. environments is exploited for developing an org.-phase amperometric biosensor. The Eastman-AQ polymeric film, known for its stability in org. media, is used to entrap the enzyme onto the glassy C surface. The resulting electrode responds rapidly to low concns. of catechols and hydroquinone in various alcs. The detection limit for hydroquinone is 6 .times. 10⁻⁷M. Various exptl. variables, influencing the response of the org.-phase biosensor, are explored. With flow injection, 60 samples/h can be processed with a relative std. deviation of 1.3%.
IT 120-80-9, Catechol, analysis
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, with laccase enzyme electrode for org.-phase assays)

L22 ANSWER 17 OF 35 HCAPLUS COPYRIGHT 1999 ACS
AN 1992:423317 HCAPLUS
DN 117:23317
TI Allelopathy of yellow fieldcress (*Rorippa sylvestris*): identification and characterization of phytotoxic constituents
AU Yamane, A.; Nishimura, H.; Mizutani, J.
CS Fac. Agric., Hokkaido Univ., Sapporo, 060, Japan
SO J. Chem. Ecol. (1992), 18(5), 683-91
CODEN: JCECD8; ISSN: 0098-0331
DT Journal
LA English
AB Both the neutral and acidic fractions of the acetone ext. of yellow fieldcress (*R. sylvestris*) inhibited lettuce germination. Salicylic, p-hydroxybenzoic, vanillic, and syringic acids were identified in the acidic fraction. In the neutral fraction, **hirsutin** (8-methylsulfinyloctyl isothiocyanate), 4-methoxyindole-3-acetonitrile, and pyrocatechol were identified. Bioassay using a root exudate recirculating system showed *R. sylvestris* during flowering inhibited lettuce seedling growth. **Hirsutin** (13 .mu.g/plant/day) and pyrocatechol (9.3 .mu.g/plant/day) were the major compds. released into the rhizosphere. Several combinations of pyrocatechol, p-hydroxybenzoic acid, vanillic acid, and **hirsutin** reduced lettuce seedling growth. These compds. seemed to be allelochems.
IT 120-80-9, Pyrocatechol, biological studies
RL: BIOL (Biological study)
(of yellow fieldcress, allelopathy in relation to)

L22 ANSWER 18 OF 35 HCAPLUS COPYRIGHT 1999 ACS
AN 1990:124928 HCAPLUS
DN 112:124928
TI Hair growth stimulants containing calmodulin inhibitors or calcium antagonists
IN Fujii, Seishiro; Kitamura, Kenji; Nakayama, Taiichi
PA Shiseido Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
Searched by John Dantzman 308-4488

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01238515	A2	19890922	JP 88-62681	19880316

AB Hair growth stimulants contain .gtoreq.1 calmodulin inhibitors or .gtoreq.

1 Ca antagonists. The stimulants control behavior of Ca in cells of the sculp. A lotion consisted of 95% EtOH 80.0, trifluoperazine 0.01, hinokitiol 0.01, hydrogenated castor oil-ethylene oxide adducts 0.5, H2O 19.0 wt.%, flavor, and coloring matter.

IT 21829-25-4, Nifedipine

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hair growth stimulants contg.)

L22 ANSWER 19 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1990:73958 HCAPLUS

DN 112:73958

TI Activation of plant foliar oxidases by insect feeding reduces nutritive quality of foliage for noctuid herbivores

AU Felton, G. W.; Donato, K.; Del Vecchio, R. J.; Duffey, S. S.

CS Dep. Entomol., Univ. California, Davis, CA, 95616, USA

SO J. Chem. Ecol. (1989), 15(12), 2667-94

CODEN: JCECD8; ISSN: 0098-0331

DT Journal

LA English

AB The foliage and fruit of the tomato plant *L. esculentum* contains polyphenol oxidases (PPO) and peroxidases (POD) that are compartmentally sepd. from o-dihydroxyphenolic substrates in situ. However, when leaf tissue is damaged by insect feeding, the enzyme and phenolic substrates come in contact, resulting in the rapid oxidn. of phenolics to o-quinones.

When the tomato fruitworm *Heliothis zea* or the beet armyworm *Spodoptera exigua* feed on tomato foliage, a substantial amt. of the ingested chlorogenic acid is oxidized to chlorogenoquinone by PPO in the insect gut. Addnl., the digestive enzymes of the fruitworm have the potential

to further activate foliar oxidase activity in the gut. Chlorogenoquinone is

a highly reactive electrophilic mol. that readily binds covalently to nucleophilic groups of amino acids and proteins. In particular, the -SH and -NH2 groups of amino acids are susceptible to binding or alkylation. In expts. with tomato foliage, the relative growth rate of the fruitworm was neg. correlated with PPO activity. As the tomato plant matures, foliar PPO activity may increase nearly 10-fold, whereas the growth rate of the fruitworm is severely depressed. In tomato fruit, the levels of PPO are highest in small immature fruit but are essentially negligible in mature fruit. The growth rate of larvae on fruit was also neg.

correlated

with PPO activity, with the fastest larval growth rate occurring when larvae fed on mature fruit. The redn. in larval growth is proposed to result from the alkylation of amino acids/protein by o-quinones, and the subsequent redn. in the nutritive quality of foliage. This alkylation reduces the digestibility of dietary protein and the bioavailability of amino acids. This mechanism of digestibility redn. may be extrapolatable

Searched by John Dantzman 308-4488

to other plant-insect systems because of the ubiquitous cooccurrence of PPO and phenolic substrates among vascular plant species.

IT **120-80-9D**, 1,2-Benzenediol, derivs.

RL: BPR (Biological process); BIOL (Biological study); PROC (Process) (metab. of, in tomato leaf, insect feeding activation of)

L22 ANSWER 20 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1989:412332 HCAPLUS

DN 111:12332

TI **Hair** tonics containing proteoglycanase **inhibitors**, glycosaminoglycanase inhibitors, and inhibitors of cellular uptake of glycosaminoglycans

PA Unilever N. V., Neth.

SO Jpn. Kokai Tokkyo Koho, 38 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63166823	A2	19880711	JP 87-326597	19871223
	JP 03029764	B4	19910425		
	CA 1319889	A1	19930706	CA 87-554275	19871214
	US 5015470	A	19910514	US 87-134422	19871217
	AU 8782813	A1	19880623	AU 87-82813	19871218
	AU 615170	B2	19910926		
	ZA 8709564	A	19890830	ZA 87-9564	19871221
	IN 166979	A	19900811	IN 87-BO370	19871221
	EP 277428	A2	19880810	EP 87-311315	19871222
	EP 277428	A3	19910313		
	EP 277428	B1	19940323		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, NL, SE				
	AT 103165	E	19940415	AT 87-311315	19871222
	ES 2051758	T3	19940701	ES 87-311315	19871222
	BR 8707033	A	19880802	BR 87-7033	19871223

PRAI GB 86-30721 19861223

EP 87-311315 19871222

AB Hair tonics are prepd. which contain enzyme inhibitors, such as proteoglycanase inhibitors, glycosaminoglycanase inhibitors, and inhibitors of cell uptake of glycosaminoglycans, and vehicles as carriers of these inhibitors. Thus, a hair lotion was prepd. consisting of L-galactono-1,4-lactone 0.1, EtOH 99.995% by wt. and a perfume q.s. Thirty other hair lotions and tonics were prepd.

IT **113-92-8**, Chlorpheniramine maleate

RL: BIOL (Biological study)

(hair tonics contg., as activity enhancer)

L22 ANSWER 21 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1988:434328 HCAPLUS

DN 109:34328

TI Isolation and properties of laccase from the basidial fungus *Coriolus hirsutus* (Fr.) Quel

AU Gindilis, A. L.; Zhazhina, E. O.; Baranov, Yu. A.; Karyakin, A. A.; Gavrilova, V. P.; Yaropolov, A. I.

CS A. N. Bakh Inst. Biochem., Moscow, USSR

SO Biokhimiya (Moscow) (1988), 53(5), 735-9

CODEN: BIOHAO; ISSN: 0006-307X

Searched by John Dantzman 308-4488

- DT Journal
 LA Russian
 AB Laccase from the fungus *C. hirsutus* was isolated and characterized. The mol. mass of the enzyme was 55 kilodaltons, and the
 pI was 4.5. The pH optimum for the enzyme activity is at 3.5-4.5. The catalytic const. and Km values for several substrates [hydroquinone, pyrocatechol, K₄Fe(CN)₆] were detd. The kinetic mechanism of laccase action is of the ping-pong type. Laccase from *C. hirsutus* catalyzed the electroredn. of O₂ to H₂O with a direct electron transfer from the enzyme active center to the electrode.
- IT 120-80-9, Pyrocatechol, reactions
 RL: RCT (Reactant)
 (reaction of, with laccase of *Coriolus hirsutus*, kinetics of)
- L22 ANSWER 22 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1988:218450 HCAPLUS
 DN 108:218450
 TI Phenols interfere in protein estimation by the bicinchoninic acid assay method
 AU Kamath, Poornima; Pattabiraman, T. N.
 CS Dep. Biochem., Kasturba Med. Coll., Manipal, 576 119, India
 SO Biochem. Arch. (1988), 4(1), 17-23
 CODEN: BIAREM; ISSN: 0749-5331
- DT Journal
 LA English
 AB Bicinchoninic acid assay method (BAC) advocated for protein estn. was found to be highly sensitive to phenols. On a wt. basis, gallic acid, tannic acid, pyrogalllic acid, and pyrocatechol yield 2.1-, 9.3-, 86.0-, and 106-fold more absorption in this method compared to bovine serum albumin. The interference of phenols in protein assay by the BCA method was found to be more than by the method of Lowry et al. While the BCA method, Lowry method, and Bradford's dye-binding method yielded
 comparable values for proteins for systems like soybean rich in proteins, the BCA method overestimated protein values by 75-fold in mango kernel, a seed rich in phenols compared to the Bradford method. The BCA method also showed differential response to std. proteins like the Bradford method.
- IT 120-80-9, Pyrocatechol, uses and miscellaneous
 RL: ANST (Analytical study)
 (interference by, in proteins detn. by bicinchoninic acid assay)
- L22 ANSWER 23 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1987:631197 HCAPLUS
 DN 107:231197
 TI 7-Ethoxyresorufin-O-deethylase activity in human hair roots: a potential marker for toxifying species of cytochrome P 450 isozymes
 AU Merk, H. F.; Mukhtar, H.; Schutte, B.; Kaufmann, I.; Das, M.; Bickers, D. R.
 CS Dep. Dermatol., Univ. Cologne, Cologne, D-5000/41, Fed. Rep. Ger.
 SO Biochem. Biophys. Res. Commun. (1987), 148(2), 755-61
 CODEN: BBRCA9; ISSN: 0006-291X
- DT Journal
 LA English
 AB Assay systems for the evaluation of carcinogen interaction with human tissues are essential for assessing cancer risk. Human hair roots (HHR) are a readily obtainable epithelial tissue source that have been employed
 Searched by John Dantzman 308-4488

for investigating inherited enzyme activities. In this study human hair roots (HHR) possessed cytochrome P 450-dependent 7-ethoxyresorufin-O-deethylase (ERD) activity which measures cytochrome P 450 isoenzymes that are highly specific (in the order of >95%) markers for the metabolic activation of many environmental carcinogenic substances such as the polycyclic arom. hydrocarbons (PAHs). Topical application of PAHs to the scalp of human volunteers enhanced the activity of this enzyme in freshly plucked hair roots. Oral and topical administration of ketoconazole to the same subjects resulted in an appreciable (up to 73%) inhibition of detectable enzyme activity. Measurement of ERD in HHR may be a useful marker for the study of toxifying species of cytochrome P 450 isoenzymes in humans populations.

IT 23593-75-1, Clotrimazole

RL: BIOL (Biological study)

(ethoxyresorufin deethylase of human **hair** roots
inhibition by, cytochrome P 450 isoenzymes inactivation in
relation to)

L22 ANSWER 24 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1987:583330 HCAPLUS

DN 107:183330

TI Hair preparations containing reducing agents, sequestering agents, metallic salts, dyes, and oxidizing agents

IN Kojima, Hiromasa; Takenaka, Jiro

PA Nishirenji Trading K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62132813	A2	19870616	JP 85-273750	19851205
	JP 01060447	B4	19891222		

AB Safe and long-lasting hair-wave setting compns. contain the following 4 reagents: (1) a reducing agent such a thioglycolate and cysteine in combination with metal sequestering agents such as compds. with phenolic OH group, enol-type OH group, etc., (2) a metallic salt, (3) an agent which reacts with the metallic salt to produce a color, and (4) an oxidizing agent such as bromate, perborate, etc. The compns. produce hair waves and at the same time dye the hair. Compds. contg. OH groups or carboxyl groups can act as chelating agents and remove metals such as Fe and Cu from the **hair**, the metals being **inhibitors** of reducing agents in the hair. These chelating agents also act as coloring agents. Hair is sequentially treated with (1), (2), (3), and (4) reagents. Thus, isolated human hair was treated with these reagents, and the condition of waves and quality of color were evaluated. The (1), (2), (3), and (4) reagents were ammonium thioglycolate-Pr gallate mixt., FeSO₄, Pr gallate, and K borate, resp.

IT 120-80-9, Catechol, uses and miscellaneous

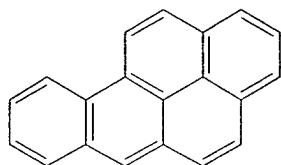
RL: USES (Uses)

(hair wave-setting reagent contg.)

L22 ANSWER 25 OF 35 HCAPLUS COPYRIGHT 1999 ACS

Searched by John Dantzman 308-4488

AN 1987:97789 HCAPLUS
 DN 106:97789
 TI Human hair follicle benzo[a]pyrene and benzo[a]pyrene 7,8-diol
 metabolism:
 effect of exposure to a coal tar-containing shampoo
 AU Merk, Hans F.; Mukhtar, Hasan; Kaufmann, Irene; Das, Mukul; Bickers,
 David
 R.
 CS Dep. Dermatol., Univ. Cologne, Cologne, Fed. Rep. Ger.
 SO J. Invest. Dermatol. (1987), 88(1), 71-6
 CODEN: JIDEAE; ISSN: 0022-202X
 DT Journal
 LA English
 GI



AB Freshly plucked human hair follicles were employed to measure the metab.
 of benzo[a]pyrene (BP) (I) [50-32-8], I 7,8-diol (BP 7,8-diol)
 [13345-25-0], and the enzyme-mediated binding of [3H]BP to DNA. The
 effect of human exposure to a crude coal tar (CCT)-contg. shampoo, a
 prepn. rich in polycyclic arom. hydrocarbons (PAHs), on these parameters
 was also evaluated. Twelve healthy volunteers were studied before and
 after shampooing their hair daily for 4 days with the CCT-contg. shampoo.
 Wide interindividual variation was obsd. in basal cytochrome P 450
 [9035-51-2]-dependent aryl hydrocarbon hydroxylase (AHH) [9037-52-9]
 activity which ranged from 0.6-17.6 fmol water-sol. BP metabolites/h/hair
 follicle (mean of 32 individuals was 9.7). After use of the shampoo for
 4 days, AHH activity increased in 10 of 12 volunteers (50-148%) and
 enhancement of enzyme-mediated binding of BP to DNA was detected in most
 subjects. Hair follicles converted BP to several metabolic species
 including BP 7,8-diol, a major precursor of the ultimate carcinogenic
 metabolite of BP. BP-7,8-diol itself was also metabolized by the human
 hair follicles in this system. Clotrimazole [23593-75-1], a
 known inhibitor of the metab. of BP as well as the carcinogenicity of the
 hydrocarbon in rodent skin, inhibited AHH and the in vitro metab. of BP
 and BP 7,8-diol in human hair follicles. Oral administration of a
 similar antifungal imidazole ketoconazole [65277-42-1] at a dose of 200 mg daily
 for 5 days to healthy volunteers also resulted in >90% **inhibition**
 of **hair** follicle AHH activity. These studies indicate that hair
 follicles represent an accessible tissue suitable for assessing the
 extent of PAH carcinogen metab. in human subjects. Furthermore, enzyme activity
 crit. to cancer induction by PAHs was inducible following the use of
 CCT-contg. shampoo. This carcinogen-activating enzyme system was
 substantially inhibited by imidazole compds., suggesting that they may
 prove effective as anticarcinogens in human populations.

Searched by John Dantzman 308-4488

- IT 23593-75-1
 RL: BIOL (Biological study)
 (aryl hydrocarbon hydroxylase of human hair follicle response to)
- L22 ANSWER 26 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1987:95472 HCAPLUS
 DN 106:95472
 TI Hair follicle: a model for determination of the imidazole-dependent inhibition of xenobiotic-metabolizing enzymes in human epidermal cells
 AU Kaufmann, Irene; Nettersheim, H.; Merk, H. F.
 CS Universitaets-Hautklin., Cologne, D-5000/41, Fed. Rep. Ger.
 SO GIT-Suppl. (1986), (6), 68-9
 CODEN: GITSD4
 DT Journal
 LA German
 AB The imidazoles clotrimazole [23593-75-1], ketoconazole [65277-42-1], and itraconazole [84625-61-6] strongly inhibited cytochrome P 450 [9035-51-2]-dependent aryl hydrocarbon hydroxylase [9037-52-9] in human epidermal hair follicles. Oral administration of ketoconazole or its topical use as a shampoo also inhibited both this enzyme and 7-ethoxyresorufin deethylase [59793-97-4] in hair follicles. Thus, the hair follicle is a suitable model for studying the effect of drugs such as imidazoles which interact with the cytochrome P 450 system.
- IT 23593-75-1, Clotrimazole
 RL: BIOL (Biological study)
 (cytochrome P 450-dependent drug-metabolizing enzymes inhibition by, human hair follicle as model for detg.)
- L22 ANSWER 27 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1986:603746 HCAPLUS
 DN 105:203746
 TI Dopaminergic inhibition of tyrosinase activity in hair follicular melanocytes of the mouse
 AU Burchill, S. A.; Thody, A. J.
 CS Dep. Dermatol., Univ. Newcastle upon Tyne, Newcastle upon Tyne, NE1 4LP, UK
 SO J. Endocrinol. (1986), 111(2), 233-7
 CODEN: JOENAK; ISSN: 0022-0795
 DT Journal
 LA English
 AB Bromocriptine [25614-03-3], a dopamine agonist that blocks the secretion of MSH, inhibits melanogenesis in the hair follicular melanocytes of pubertal C3H-HeA*vy mice. Since this effect cannot be explained by a redn. in circulating .alpha.-MSH, dopaminergic mechanisms may have a direct inhibitory effect on these melanocytes. Bromocriptine decreased tyrosinase [9002-10-2] activity in skin explants from 30-35-day-old mice that were growing dark hair, and this decrease in tyrosinase activity was blocked by the dopamine receptor antagonists haloperidol or spiperone. The specific D2 agonist LY 171555 [85798-08-9] also inhibited tyrosine activity in the skin explants in a dose-related manner and the effect was blocked by sulpiride, a D2-receptor antagonist. Neither bromocriptine nor LY 171555 had any effect on tyrosinase activity in skin explants taken from adult mice that were growing yellow hair.
- The Searched by John Dantzman 308-4488

D1-receptor agonist SKF 38393 had no effect on tyrosinase activity in skin explants from either group of mice. Thus, dopamine D2-receptor agonists apparently had a direct inhibitory effect upon tyrosinase activity of

hair follicular melanocytes of the C3H-HeA*vy mouse, but this effect was confined to periods of dark hair growth when the melanocytes produce eumelanin. The D2 agonists were ineffective in reducing tyrosinase activity during adult life, when the melanocytes produce predominantly pheomelanin. Different control mechanisms may operate in the hair follicular melanocytes during periods of eumelanin and pheomelanin synthesis.

IT 25614-03-3

RL: BIOL (Biological study).

(tyrosinase of hair follicle melanocyte inhibition by)

L22 ANSWER 28 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1985:468010 HCAPLUS

DN 103:68010

TI Factors affecting production and activity of Polyporus **hirsutus** laccase

AU Amin, Bela; Gupta, Charu; George, Usha

CS Fac. Sci., M. S. Univ., Baroda, 390 002, India

SO Indian J. Exp. Biol. (1985), 23(5), 273-5

CODEN: IJEBA6; ISSN: 0019-5189

DT Journal

LA English

AB Laccase prodn. by P. **hirsutus** was enhanced by the addn. of 20% sucrose, 1% tween 60, or 50 .mu.g of Cu²⁺ to 2% malt ext. medium, and also

by removal of phenolics therefrom. Partially purified enzyme had an apparent Km of 300 .mu.M for guaiacol, a K_i(s) of 5 mM for the same substrate and a Vmax of 30.8 IU/min. Cu²⁺ did not affect enzyme activity.

The enzyme oxidized catechol, p-hydroquinone, 1,2,4-trihydroxybenzene, and ferulic acid, but did not act on resorcinol or 2,4-D.

IT 120-80-9, biological studies

RL: BIOL (Biological study)

(laccase activity response to, in Polyporus **hirsutus**)

L22 ANSWER 29 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1984:532743 HCAPLUS

DN 101:132743

TI Phenolic compounds in living tissue of woods. V. Reddish orange staining

in keyamahannoki (Alnus **hirsuta**) and hannoki (A. japonica) [Betulaceae] caused by the interaction of **hirsutoside** and catechol oxidase after cutting the woods

AU Terazawa, Minoru; Miyake, Moto; Okuyama, Hiroshi

CS Lab. For. Prod. Chem., Obihiro Univ. Agric. Vet. Med., Obihiro, 080, Japan

SO Mokuzai Gakkaishi (1984), 30(7), 601-7

CODEN: MKZGA7; ISSN: 0021-4795

DT Journal

LA English

AB The drastic reddish orange staining on the cut surfaces of xylem and inner bark of *A. hirsuta* was affected by the interaction of catechol oxidase (I) [9002-10-2] and *hirsutoside* (II) [91997-99-8] present in the wood. Results on the study in vivo, using the young shoots of *A. hirsuta* and Na 2-mercaptobenzothiazole (III) [2492-26-4] as I and catechol peroxidase (IV) inhibitor, demonstrated that the enzyme involved in the discoloration is not IV but I, and studies in vitro, using I and II in Me₂CO-insol. powder from apples with and without III demonstrated that II is the precursor for the reddish orange discoloration materials.

IT **120-80-9**, uses and miscellaneous
 RL: PRP (Properties)
 (interaction of, with catechol oxidase, wood discoloration in relation to)

L22 ANSWER 30 OF 35 HCAPLUS COPYRIGHT 1999 ACS
 AN 1984:484156 HCAPLUS
 DN 101:84156
 TI The use of human skin fibroblasts to obtain potency estimates of drug binding to androgen receptors
 AU Eil, Charles; Edelson, Susanne K.
 CS Endocrinol. Branch, Natl. Nav. Med. Cent., Bethesda, MD, 20814, USA
 SO J. Clin. Endocrinol. Metab. (1984), 59(1), 51-5
 CODEN: JCEMAZ; ISSN: 0021-972X
 DT Journal
 LA English
 AB The relative potencies of antiandrogens and androgenic drugs in human cells were detd. by comparing the abilities of these compds. to compete with 3H-labeled dihydrotestosterone (DHT) [521-18-6] for androgen-binding sites in dispersed human genital skin fibroblasts at 22.degree.. The concns. of DHT, methyltrienolone [965-93-5] (a synthetic nonmetabolizeable androgen), and testosterone [58-22-0] required for 50% inhibition of [3H]DHT binding were similar, approx. 1 nM [0.87, 1.18, and 1.01 nM, resp.]. The relative binding activities, defined by the ratio of the concn. of methyltrienolone to the concn. of competitor required for 50% displacement of [3H]DHT, were as follows: spironolactone [52-01-7] > R2956 [23983-19-9] (a synthetic antiandrogen) > megestrol acetate [595-33-5] > cyproterone acetate [427-51-0] > estradiol [50-28-2] > flutamide [13311-84-7] .mchgt. testolactone [968-93-4] > cimetidine [51481-61-9]. Danazol [17230-88-5], an androgen agonist that causes *hirsutism*, was nearly as effective as spironolactone in its ability to compete for the fibroblast androgen receptor; 50% inhibition of fibroblast [3H]DHT binding was achieved by 1.76 nM spironolactone and 2.85 nM danazol. Two other compds. that induce *hirsutism*, diphenylhydantoin [57-41-0] and diazoxide [364-98-7], did not displace [3H]DHT. Of the compds. tested, spironolactone, which is rapidly metabolized in vivo to a much less potent competitor, is the most potent antiandrogen in its ability to interact in vitro with human skin fibroblast androgen receptors.

IT **51481-61-9**

RL: BIOL (Biological study)

(dihydrotestosterone displacement from receptor by, in fibroblasts of human, binding potency in relation to)

L22 ANSWER 31 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1983:482778 HCAPLUS

DN 99:82778

TI Effects of cyproterone and tamoxifen upon the hair waves in mice

AU Arias, Norberto H.; Houssay, Alberto B.; Pieretti, Silvia A.

CS Fac. Med., Univ. Buenos Aires, Buenos Aires, Argent.

SO Acta Physiol. Latinoam. (1982), 32(4), 261-6

CODEN: APLTAF; ISSN: 0001-6764

DT Journal

LA English

AB The effects of cyproterone [2098-66-0] and of tamoxifen [10540-29-1] on hair growth waves were studied in normal and castrated C57 mice. Cyproterone (1 mg/day) had no effect on hair growth waves in normal male mice and produced a slight inhibition of the diffuse growth induced by their castration. Tamoxifen (1 mg/day) had no effect

on

the hair growth waves in normal female mice and produced a marked inhibition (0.2-1 mg/day) on diffuse hair growth induced by their castration. The differences between the effects of castration and the effect of these drugs can be explained in the case of cyproterone by a slight agonistic androgenic effect and in the case of tamoxifen by a marked agonistic estrogenic effect on the hair follicles in mice.

IT 10540-29-1

RL: BIOL (Biological study)

(hair growth response to, after ovariectomy)

L22 ANSWER 32 OF 35 HCAPLUS COPYRIGHT 1999 ACS

AN 1982:159456 HCAPLUS

DN 96:159456

TI The effects of naturally occurring phenolic compounds on seed germination

AU Williams, Robert D.; Hoagland, Robert E.

CS South. Plains Watershed Water Qual. Lab., Durant, OK, 74701, USA

SO Weed Sci. (1982), 30(2), 206-12

CODEN: WEESA6; ISSN: 0043-1745

DT Journal

LA English

AB Caffeic acid, chlorogenic acid, coumarin, p-coumaric acid, ferulic acid, fumaric acid, gallic acid, hydrocinnamic acid, p-hydroxybenzoic acid, juglone, and pyrocatechol were examd. for effects on germination of 9

crop

and weed species, i.e., cotton (*Gossypium hirsutum*), cataloupe (*Cucumis melo*), corn (*Zea mays*), sorghum (*Sorghum bicolor*), hemp sesbania (*Sesbania exaltata*), sickelpod (*Cassia obtusifolia*), velvetleaf (*Abutilon theophrasti*), prickly sida (*Sida spinosa*), and redroot pigweed

(*Amaranthus*

retroflexus). Germination tests with 10⁻³ and 10⁻⁵ M solns. were conducted under controlled conditions in petri dishes at 25.degree. in

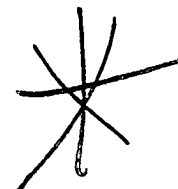
the

dark. At 10⁻³ M, coumarin, hydrocinnamic acid, juglone, and pyrocatechol inhibited germination, but p-hydroxybenzaldehyde and p-hydroxybenzoic

acid

were not effective and others had intermediate effects. There was little effect by any compd. at 10⁻⁵ M. Chlorogenic acid, p-hydroxybenzaldehyde,

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- and pyrocatechol, each combined with coumarin, inhibited germination.
- The combination of coumarin plus p-hydroxybenzaldehyde had an additive effect on hemp sesbania and prickly side, inhibiting germination to a greater extent than either compd. alone. The lack of inhibitory action at the higher concn. of some of these chems. suggests they may not exhibit a high allelopathic potential.
- IT 120-80-9, biological studies
RL: BIOL (Biological study)
(seed germination inhibition by, allelopathy in relation to)
- L22 ANSWER 33 OF 35 HCAPLUS COPYRIGHT 1999 ACS
AN 1980:107526 HCAPLUS
DN 92:107526
TI Preliminary biochemical studies on aspects of host-specificity of an unknown midge on *Grewia rotundifolia* Juss., in relation to gall formation
AU Madhavan, S.; Raman, A.
CS India
SO Insects Host-Specif., Proc. Symp. (1977), Meeting Date 1976, 57-61.
Editor(s): Ananthakrishnan, Taracad Narayanan. Publisher: Macmillan Co. India Ltd., New Delhi, India.
CODEN: 42NWAT
DT Conference
LA English
AB Young leaves of *G. rotundifolia*, which is susceptible to gall development, contained qual. and quant. less phenols than the gall-resistant *G. hirsuta* and *G. orientalis*. The concn. of sol. sugars, however, was higher in *G. rotundifolia* than in the other 2 species. Host preference for the gall midge is discussed.
- IT 120-80-9, biological studies
RL: BIOL (Biological study)
(of *Grewia* leaves, gall formation in relation to)
- L22 ANSWER 34 OF 35 HCAPLUS COPYRIGHT 1999 ACS
AN 1974:130476 HCAPLUS
DN 80:130476
TI Distribution of histamine-releasing activity in *Gossypium hirsutum*
AU Evans, Elizabeth; Nicholls, P. J.
CS Welsh Sch. Pharm., Univ. Wales Inst. Sci. Technol., Cardiff, Wales
SO J. Pharm. Pharmacol. (1973), 25(Suppl.), 141P-142P
CODEN: JPPMAB
DT Journal
LA English
AB Exts. of the bracts, seed, leaf, and root of cotton plants (*G. hirsutum*) contained considerable histamine-releasing activity towards pig lung pieces compared to cotton dust; exts. of the main stem, cotton linters, or calyx and pedicel of the boll contained no activity. The histamine-releasing activity of cotton dust is probably due to the presence of powd. fragments of bracts, leaves, and seeds.
- IT 51-45-6, biological studies
RL: BIOL (Biological study)
(release of, by cotton tissue)
- L22 ANSWER 35 OF 35 HCAPLUS COPYRIGHT 1999 ACS
AN 1972:56558 HCAPLUS

DN 76:56558
TI Extraction and estimation of histamine from *Gossypium* species
AU Greensmith, Susan; Turner, Terence D.
CS Welsh Sch. Pharm., Univ. Wales Inst. Sci. Technol., Cardiff, Wales
SO J. Pharm., Pharmacol. (1971), 23(Suppl.), 229S-230S
CODEN: JPPMAB
DT Journal
LA English
AB The plant material was extd. with N trichloroacetic acid, and the ext. adjusted to pH 7.5 was passed through Amberlite C G50 anionic exchange resin. The eluate was subjected to solvent extn. before the fluorogenic reaction with ortho-phthalaldehyde. The histamine (I) content of *G. hirsutum* (cotton) was: old leaves, 87 .mu.g/g young mature leaves, 101 .mu.g/g, and mature bracts, 26 .mu.g/g fresh leaves. *G. arboreum* contained in young mature leaves 113 .mu.g/g and in fresh bracts 6 .mu.g I/g of fresh material. The I content of dried leaves of *G. hirsutum* was 1760 .mu.g/g corresponding to 330 .mu.g/g of fresh leaves.
IT 51-45-6, biological studies
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(of cotton)